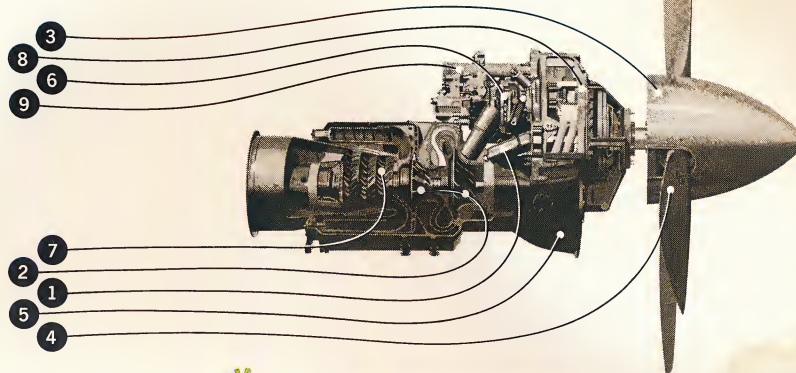


A man in a light-colored suit and dark tie is shown from the chest up, seated in the cockpit of a turboprop aircraft. He is looking out the side window at the wing of the plane, which features a small red and white logo. The cockpit interior is visible, including the yoke and various controls. The view out the front window shows a bright sky with scattered white clouds. The overall tone is professional and confident.

A TURBOPROP ENGINE  
IS THE RIGHT CHOICE



# When it is a fixed shaft engine...



## CHECK THESE BENEFITS



### 1. SAFE GROUND HANDLING \*

Beta system for setting forward and reverse prop blade angles — a standard design feature of all TPE-331 engines—gives the pilot direct control of the propeller in all ground handling operations.



### 6. CONTROLLED RAPID DESCENT

TPE-331 design provides positive direct-shaft governing; prevents windmilling overspeeds in fast descents. The Airesearch engine gives propeller braking effect not possible in turboprop engines using free-turbine design.



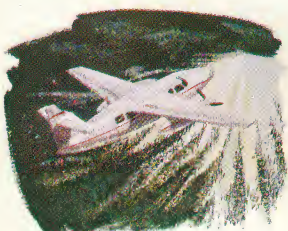
### 2. PROTECTION FROM FOREIGN OBJECT INGESTION

Extremely rugged, one-piece centrifugal compressors shrug off damage from foreign objects ingested on runways or in flight. Unlike other small turboprops, the TPE-331 needs no troublesome inlet screens, has no fragile axial compressor blades to break off.



### 7. INSTANT POWER RESPONSE

Inbuilt responsiveness of the Airesearch fixed-shaft engine design lets the TPE-331 deliver immediate power in emergency wave-off or undershoot. Free turbine type engines must use a complex control system in an attempt to overcome their inherent longer lag in response time.



### 3. EXTRA SINGLE ENGINE SAFETY \*

Engine design includes automatic NTS (negative torque sensing) system which reduces prop drag to an easily controlled situation in the event of engine shutdown. TPE-331 is the only engine in its class with this feature.



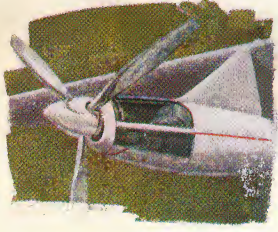
### 8. RAPID REVERSE THRUST

Faster, more positive prop-reversing ability of the TPE-331 increases short field landing capability, gives added safety when landing on wet or icy runways.



### 4. POSITIVE AIR RE-STARTS

The TPE-331 provides the important advantage of easy air re-starts by controlled windmilling of the prop. Free turbine engines cannot utilize windmilling for air re-starts.



### 9. EASY SERVICING

The Airesearch turboprop combines main shaft speed reduction and accessory drive gears in a reliable gearbox. Logical from design of the TPE-331 locates engine accessories at this single gearbox for faster, easier servicing.



### 5. NO ICING PROBLEMS

Engine heat supplied at air intake provides anti-icing, permits safer flying through icing conditions. There are no inlet screens to develop potential ice buildup, there are no alcohol de-icers to create fumes in the cabin.



The Airesearch TPE-331, as certified, has all of the safety features and design requirements for Part 4B (FAR 25) Transport Category Aircraft. These features include Negative Torque Sensing and Beta follow-up, both exclusive to the TPE-331 in this power class.

safety . . .

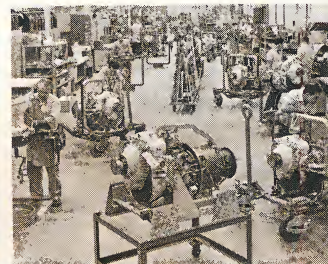


When it is backed by a reputable company...

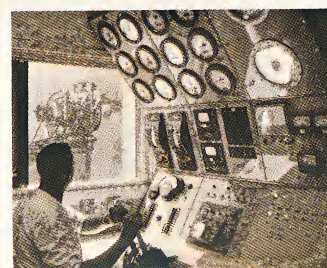
The TPE-331 was a natural development extension for Airesearch in the gas turbine engine market. 20 years of leadership has made the Airesearch Manufacturing Company of Arizona, Division of the Garrett Corporation, the world's largest producer of gas turbine engines under 1,000 horsepower. These turbines are now seeing worldwide service in military and commercial aircraft.



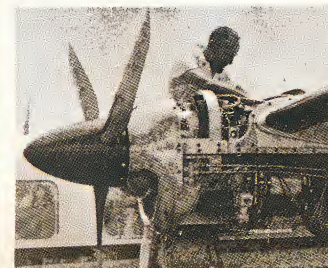
DESIGN



PRODUCTION



TESTING



PRODUCT SUPPORT

Airesearch product reliability is well proven by the experience of every major airline in the free world. Most of the 22 product lines of the Airesearch divisions of the Garrett Corporation have performed a major role in establishing the commercial airline reputation for safe and reliable equipment since the days of the famous DC-3. Engine oil coolers, heat exchangers, actuators, motors, airconditioning systems, controls, pressurization systems, engine starters and gas turbine engines are but a few of the Airesearch products giving reliable service in today's modern military, commercial airline, and business aircraft.

Owners of the TPE-331 engine will benefit from experienced factory support of their engine. Services available from the Product Support Department at Airesearch include: field service, overhaul, technical training, manuals, spare parts, and excellent warranty protection.

Installations of the Airesearch TPE-331 engine include these well-known aircraft. Other major manufacturers are completing plans to utilize the 331 in their new turboprop powered aircraft.



C-119



OV-10A



VOLPAR BEECH 18



TURBO PORTER



TURBO COMMANDER

experience . . .

**AIRESEARCH TPE 331**



When...it is a **TPE 331**



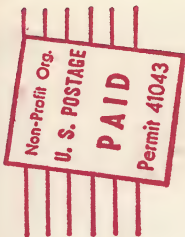
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PHOENIX, ARIZONA



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